

REMARKS

This Amendment is responsive to the Office Action mailed on June 1, 2005. Claims 1-42 are pending. Claims 15, 16, 18 and 24-26 and 28-39 have been withdrawn from consideration.

As a preliminary matter, the Examiner has indicated that Applicants will have to cancel the unelected species B claims in the event that amended claim 1 is allowed because the specification does not provide support for mixing Species A and Species B. Applicants respectfully disagree with the Examiner's position. Species A relates to the mounting of the second pane to the first pane via an adhesive. Species B relates to the mounting of the second pane to the first pane via a spacer. However, Applicants' specification clearly discloses the use of an *adhesive spacer*. See, e.g., Applicants' specification at page 16, line 16 *et seq.*; page 18, line 8 *et seq.*; and page 31, line 10 *et seq.* The adhesive spacing and mounting structure 18 (Fig. 1), for example, can comprise a rigid, semi-rigid or flexible foam that functions as both a spacer and an adhesive for the glazing panes. Similarly, the other spacer structures disclosed, such as spacer 162 of Fig. 20C can provide both spacing and adhesive functions. Thus, there appears to be no reason to cancel the unelected species B claims in the event that amended claim 1 is allowed.

The specification has been amended herein, as required by Examiner, to refer to the patent number of the parent application. Claim 1 has been amended to overcome the rejections based on the prior art.

Claims 1, 3-14, 17, 19-20, 23 and 40-42 have been rejected under 35 U.S.C. §103(a), as being unpatentable over FR 2,612,244 (hereinafter FR '244) in view of the collective teachings of Guhl et al. US 6,055,783 (hereinafter Guhl '783), Guhl et al. US 6,260,251 (hereinafter Guhl '251) and Tibble et al. US 3,573,149 (hereinafter Tibble). It is noted that the Examiner had previously allowed the claims over all of these references, as indicated in the Notice of Allowance dated July 1, 2004. In the Examiner's Amendment portion of the Notice of Allowability, the Examiner stated that the "closest art of record was found in US 3573149 to Tibble. Please refer to Applicant's arguments filed on 3/30/04 (p. 10, 3rd paragraph which talks about Figure 3) for a discussion as to how present claim 1 and Tibble differ." The Examiner is referred to Applicants' prior arguments, which clearly distinguished the present invention over Tibble, Guhl '251 and

Guhl '783 and resulted in the allowance of Applicants' claims. It is respectfully submitted that these arguments still apply, even in view of the Examiner's current reliance on the additional French '244 reference. The French '244 reference does not cure the deficiencies of the Tibble and Guhl references, since, *inter alia*, there would have been no motivation or even remote suggestion at the time the present invention was made to combine the references in the manner suggested by the Examiner.

Claim 2 has been rejected as being obvious over FR '244 and the collective teachings of Guhl '783, Guhl '251 and Tibble, in further view of DE 951,040 (hereinafter DE '040).

Claims 21-22 have been rejected as being obvious over FR '244 and the collective teachings of Guhl '783, Guhl '251 and Tibble, in further view of the collective teachings of Silverman and Leopold. It is noted that these claims were previously allowed over all of these references.

Claims 1, 3-5, 7-9, 12, 17 and 19 have been rejected under 35 U.S.C. §103(a), as being unpatentable over Guhl '251 in view of FR 2,301,678 (hereinafter FR '678).

Claims 1, 3-9, 12, 14, 17 and 19 have been rejected under 35 U.S.C. §103(a), as being unpatentable over Guhl '251 in view of the collective teachings of newly cited Laroche et al. US 4,198,254 (hereinafter Laroche) and FR '244.

Claim 2 has been rejected as being obvious over Guhl '251 in view of FR '678 or the collective teachings of Laroche and FR '244, in further view of DE '040.

Claims 10-11, 13, 20 and 41-42 have been rejected as being obvious over Guhl '251 in view of FR '678 or the collective teachings of Laroche and FR '244, in further view of Guhl '783.

Claims 21-22 have been rejected as being obvious over Guhl '251 in view of FR '678 or the collective teachings of Laroche and FR '244 in further view of the collective teachings of Silverman and Leopold.

Claims 23 and 40 stand rejected under 35 U.S.C. §103(a) as being obvious over Guhl '251 in view of FR '678 or the collective teachings of Laroche and FR '244, in further view of Tibble.

Claims 1, 3-14, 17 and 19-20, 23 and 40-42 stand rejected under 35 U.S.C. §103(a), as being unpatentable over Laroche in view of the collective teachings of Guhl '783, Guhl '251 and Tibble.

Claim 2 has been rejected as being obvious over Laroche in view of the collective teachings of Guhl '783, Guhl '251 and Tibble, in further view of DE '040.

Claims 21-22 have been rejected as being obvious over Laroche in view of the collective teachings of Guhl '783, Guhl '251 and Tibble, in further view of the collective teachings of Silverman and Leopold.

These rejections are respectfully traversed in view of the amended claim and the following comments.

Various claims stand rejected as being obvious over FR '244, which has been cited as both a primary reference and a secondary reference in different rejections set forth by the Examiner. FR '244 discloses a method for making a double-glazed window assembly consisting of an L-Shaped frame (A) to which the two panes of glass (C1, C2) are attached by adhesive sealing gasket joints (E1, E2, E3).

The Examiner suggests that FR '244 teaches inserting a second glazing pane C1 into the opening from the first side.... (Office Action paragraph 6).

Applicants respectfully submit that FR '244 does not teach inserting a second pane into the opening as set forth in amended claim 1. FR '244 clearly discloses an L-shaped frame wherein pane C1 is attached via an adhesive sealing gasket joint outside of the opening, defined by B, into which pane C2 is inserted. Amended claim 1 sets forth that the sash frame has a *common* glazing pane installation opening *for at least two glazing panes*. The opening is defined by *a shelf extending transversely from the glazing pane support surface around a perimeter of the sash frame*. The installation opening is shown, e.g., in Applicants' Fig. 11 at 101. The support surface is shown as element 110 in Fig. 11 (see page 24, lines 10-12 of Applicants' specification). The wall that extends vertically from the horizontal support surface 110 illustrated in Fig. 11 is the "shelf" referred to in amended claim 1. The shelf, which extends transversely from the support surface 110, defines the opening 101. Although a specific structure is illustrated in Fig. 11, it should be appreciated that the claimed structure can be implemented using different designs.

FR '244 does not disclose or suggest a structure as set forth in Applicants' claim 1. As indicated above, although glass pane C2 can be said to fit within the opening defined by surface B, glass pane C1 extends beyond this opening, and is simply too large to fit into the opening. Thus,

the requirement of Applicants' claim 1 for a "common" glazing pane installation opening for "at least two glazing panes" is not met by FR '244. Nor, does FR '244 disclose or suggest Applicants' claimed steps of (i) first, inserting a first glazing pane into said opening from said first side, and (ii) second, inserting a second glazing pane into said opening from said first side. In the FR '244 structure, only the first glass pane is inserted into the opening defined by surface B. The remaining references relied on by the Examiner do not cure the deficiencies of FR '244.

Guhl '783 shows two glazing panes mounted to the sash frame in Figure 4. However, like FR '244, Guhl '783 does not disclose inserting a second glazing pane into the same opening as the first glazing pane.

Guhl '251 shows inserting a prefabricated double pane insulating glass (IG) unit into the sash frame. This is clear from Figure 4 of the Guhl '251 patent, where IG unit 24 (the "glazing") is inserted as a single assembly into the sash frame opening. The glazing panel 24 is produced separately from the process disclosed in Guhl '251 and is attached to the sash portion 36 by way of a ledge 42 and a glazing bead 46. (Column 6, Lines 49-55). Guhl '251 is a prior art structure of the type that the present invention is intended to render obsolete. With the present invention, the glass is glazed directly to the sash frame; there is no separate IG unit that has to be manufactured, and then mounted into the sash frame. Therefore, Guhl '251 is not believed to be relevant to the present invention. This reference fails to disclose or even remotely suggest the fabrication of an integrated multipane window sash as described and claimed in the present application, and provides no motivation for a method as claimed by Applicants. Guhl's disclosure of an IG unit is completely contrary to the teaching and intent of the present invention.

Tibble also fails to disclose inserting a second glass pane into the same opening as the first glass pane from the same side and then adhesively mounting the second glass pane to the first glass pane. The configuration disclosed in Fig. 3 shows a first glass pane inserted into an opening from a first side and the second glass pane inserted into a different opening from a second side. The configuration disclosed in Fig. 1 shows a first glazing pane mounted to a second glazing pane, then the panel including both panes inserted into a sash frame. Therefore, Tibble does not disclose inserting the second glass pane into the same opening as the first glass pane, then adhesively

mounting the second glass pane to the first glass pane. Moreover, there is no adhesive between the first glass pane and a support surface of the sash frame, as claimed by Applicants.

As FR '244, Guhl '783, Guhl '251 and Tibble taken alone or in any combination fail to disclose or suggest the features of Applicants' amended claim 1, withdrawal of the rejections under 35 U.S.C. § 103(a) is respectfully requested.

The Examiner has cited FR '678 as teaching forming a glazing unit by inserting a second pane into an opening of a sash frame and mounting the second pane to the first pane, which has already been inserted into the sash frame, via an adhesive. (Office Action Page 8). However, FR '678 does not teach inserting a second pane into the opening defined by a shelf extending transversely from said glazing pane support surface as claimed by Applicants in amended claim 1. FR '678 clearly discloses an L-shaped frame wherein pane 13 contacts the frame outside the opening defined by the outside perimeter of spacer 1. Therefore, pane 13 is not inserted into the opening and FR '678 does not disclose or remotely suggest inserting a second glazing pane into the opening as claimed in Applicants' amended claim 1.

The combination of Guhl '251 and FR '678 would not lead one of ordinary skill in the art to produce Applicants' claimed invention. At best, the result would be a multipane window sash wherein the second glass pane is placed against a spacer or ledge integral to the sash frame. The combination would be distinct from Applicants' amended claim 1 in that there is no disclosure or remote suggestion to insert the second pane into the opening defined by a step extending transversely from said glazing pane support surface.

As the combination of Guhl '251 and FR '678 fail to disclose inserting a second glazing pane into the opening, the combination fails to teach or suggest each and every aspect of the claimed invention. Withdrawal of the rejection under 35 U.S.C. § 103(a) based on Guhl '251 and FR '678 is therefore respectfully requested.

Claims 1, 3-9, 12, 14, 17 and 19 stand rejected as being obvious over Guhl '251 in view of the collective teachings of Laroche and FR '244. This rejection is respectfully traversed in view of Applicants' amended claim 1 and the remarks set forth below.

Laroche teaches a method of constructing a hollow panel and a frame simultaneously. A second sub-assembly is produced by attaching a glass sheet 11 to a second frame component 13 by

a sealing strip 12 prior to mounting the second sub-assembly to the first sub-assembly (produced in a similar manner). The sub-assemblies are joined together by bolting the frame components and providing a spacer ribbon 15 between the sheets of glass (Column 12, Lines 55-60).

Laroche, clearly does not disclose or suggest Applicants' second step of inserting a second glazing pane into a sash frame opening from a first side, because the second glass sheet 11 is never inserted into the opening defined by the first frame component 8. Furthermore, a glazing bead 13 is already mounted to the second glass sheet 11 prior to mounting the first glass sheet 10 to the second glass sheet 11. Therefore, Laroche does not disclose or remotely suggest Applicants' claimed third step of installing at least one glazing bead along at least a portion of the glazing pane installation opening after the glazing panes have been inserted.

If the method of constructing a hollow glazing unit in a frame were combined with the frame structure of Guhl '251, the combination would not result in Applicants' claimed method. Rather, the combination would suggest providing a sash frame assembly and a sash frame component, mounting the second glass sheet to the second glass frame component, then mounting the second glass sheet to the first glass sheet.

As discussed above, FR '244 does not disclose or remotely suggest inserting a second pane into the opening as claimed by Applicants in amended claim 1. FR '244 in combination with Guhl '251 only teaches mounting the second glass pane to the first glass pane and an outside perimeter of the sash frame outside the opening into which the first glass pane was inserted. Therefore, the combination fails to disclose or remotely suggest inserting the second glass pane into the opening defined by a shelf extending transversely from said glazing pane support surface.

The combination of Guhl '251, FR '244 and Laroche fails to disclose or remotely suggest the method set forth in Applicants' amended claim 1. Withdrawal of the rejection under 35 U.S.C. § 103(a) is therefore respectfully requested.

Claims 1, 3-14, 17, 19-20, 23 and 40-42 stand rejected as being obvious over Laroche in view of the collective teachings of Guhl '783, Guhl '251 and Tibble. This rejection is respectfully traversed.

As discussed above, Laroche discloses a method for producing a hollow panel wherein first and second sheets are mounted to first and second frame components, respectively. The frame

components, 8 and 13, are then bolted together and a spacer ribbon 15 is placed between the first and second sheets. Laroche does not disclose or remotely suggest the present invention. For example, the second sheet provided by Laroche is never inserted into an opening from a first side after the first sheet. Furthermore, Applicants' third step of installing the glazing bead after inserting the second glazing pane is not disclosed or remotely suggested. Laroche's second glass pane 11 is mounted to the second frame component 13 prior to mounting the second glass pane 11 to the first glass pane 10. Moreover, there is no separate glazing bead in Laroche. Instead, the second frame component 13 has an extension which supports sealing strip 9 and serves as a glazing bead. These defects are not cured by any suggestion found in Tibble, Guhl '783, Guhl '251, as discussed above, or any other prior art of record.

The Examiner has suggested that Tibble, Guhl '783, and Guhl '251 disclose installing a glazing bead after the glazing panes have been inserted. However, Laroche only discloses a structure where a glazing bead for the second glass pane is provided prior to mounting the second glass pane to the first glass pane. Adding another glazing bead after the second glass pane is mounted would not make sense and would not provide an additional benefit. Eliminating the step of mounting the second glass pane to the second frame component would change Laroche to an unrecognizable configuration that would not allow the second frame component and the second glass pane to be mounted to the first glass pane and first frame component by a spacer ribbon and a bolt 14. Only with hindsight gained impermissibly from Applicants' disclosure could one of ordinary skill in the art possibly arrive at the conclusion suggested by Examiner. Withdrawal of the rejection under 35 U.S.C. § 103(a) is therefore respectfully requested.

The prior art cited by the Examiner, taken alone or in any combination, fails to render the present claims unpatentable. There is simply no disclosure or suggestion of a method as claimed by Applicants, wherein a sash frame is provided with a common glazing pane installation opening for at least two glazing panes, where the opening is accessible from a first side and defined by a shelf extending transversely from a glazing pane support surface around a perimeter of the sash frame. Nor, does the prior art disclose or suggest Applicants' claimed steps of inserting the first glazing pane into the opening from the first side and placing an outside surface perimeter thereof adjacent the support surface with an adhesive therebetween. Still further, the prior art fails to

disclose or suggest the insertion of a second glazing pane into the opening from the first side and mounting an inside surface perimeter of the second pane to an inside surface perimeter of the first glazing pane via a second adhesive, followed by the installation of a glazing bead. Accordingly, reconsideration and withdrawal of all of the claim rejections based on the prior art is respectfully requested.

Further remarks regarding the asserted relationship between Applicants' claims and the prior art are not deemed necessary, in view of the amended claims and the foregoing discussion. Applicants' silence as to any of the Examiner's comments is not indicative of acquiescence to the stated grounds of rejection.

The Examiner is respectfully requested to reconsider this application, allow each of the pending claims and to pass this application on to an early issue. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicants' undersigned attorney.

Respectfully submitted,



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